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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,184	03/18/2004	Gilles Tatham	L7307.04109	5111

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,184

Applicant(s)

TATHAM ET AL.

Examiner

Brian J. Broadhead

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification lacks a reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 through 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staggs, 6711479, in view of Fagan et al., 2004/0119638.
4. As per claims 14, 15, 2 through 5, and 13, Staggs discloses information sources (2) which provide at least one indication of position relating to the actual position of the aircraft and information making it possible to characterize a virtual approach axis in figures 15, 16 and 17; an information processing unit (3), which processes information emanating from said information sources (2) and which is able to determine lateral and vertical deviations between the actual position of the aircraft and the position that it would have if it were on said virtual approach axis on lines 34-45, on column 2; a user device (4), which uses the results of processing implemented by said information processing unit (3) as reference number 132 or 124; wherein said information

processing unit (3) comprises is able to implement a non precision approach, by determining the lateral and vertical deviations between the actual position of the aircraft and the position that it would have if it were on said virtual approach axis on lines 2-65, on column 2; a flight management computer (126); the information sources are a plurality of sensors connected to the flight management computer (112,114,116,120,108); and an inertial reference unit that determines a first position on lines 34-38, on column 13. Staggs does not disclose a landing aid multimode receiver intended for implementing a precision approach and moreover comprising an assisted approach mode function, which is integrated into said receiver; and wherein said landing aid multimode receiver comprises a satellite-based positioning function, linked with a satellite-based positioning system. Fagan teaches a landing aid multimode receiver intended for implementing a precision approach and moreover comprising an assisted approach mode function, which is integrated into said receiver; and wherein said landing aid multimode receiver comprises a satellite-based positioning function, linked with a satellite-based positioning system in paragraphs 96, 97, 101, and 104. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Fagan in the invention of Staggs because such modification would allow for performing all types of landings and can provide information during all phases of flight as disclosed by Fagan.

5. As per claims 6, 7, 8, 9, 10, 11, and 12, Staggs and Fagan disclose the limitations as set forth above. Staggs does disclose that the position data is calculated from both the GPS data and inertial data on lines 34-36, on column 13. Staggs and

Fagan do not disclose how and in which processor the refined position is calculated from the GPS and inertial position data. Staggs does disclose that the position data is calculated from both the GPS data and inertial data on lines 34-36, on column 13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the refined position data in any processor attached to the data bus(specific link) because such modification is a design choice that would not provide unexpected results.

Response to Arguments

6. Applicant's arguments with respect to claims 2 through 15 have been considered but are moot in view of the new ground(s) of rejection. The argument that it is not obvious to integrate both a precision and non-precision approach mode into a single receiver is not convincing. There are many multi-mode receivers on the market already that have both GPS data for non-precision approaches and precision approach receivers. Fagan mentions one, the GNLU-930. Fagan also discloses that the flexibility of installation and configuration of the MMR is endless in paragraph 101. This includes integration with an autopilot as the "user device".

Conclusion


7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 571-272-6957. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



THOMAS BLACK
SUPERVISORY PATENT EXAMINER